Biodiversity Data Journal 3: e4701
doi: 10.3897/BDJ.3.e4701

open access

Taxonomic Paper

Notes on Shore Flies (Diptera: Ephydridae) from Finland and north-western Russia

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Academic editor: Daniel Whitmore

Received: 09 Feb 2015 | Accepted: 25 Mar 2015 | Published: 30 Mar 2015

Citation: Kahanpää J, Zatwarnicki T (2015) Notes on Shore Flies (Diptera: Ephydridae) from Finland and north-western Russia. Biodiversity Data Journal 3: e4701. doi: 10.3897/BDJ.3.e4701

Abstract

The recent checklist of the Ephydridae of Finland by Zatwarnicki and Kahanpää (2014) mentioned 13 ephydrid species as new for Finland without further details. This paper presents detailed records for those species and a few other species of interest. Four species are recorded for the first time from Russia. *Trimerina indistincta* Krivosheina, 2004 is herein considered as a new junior synonym of *Trimerina microchaeta* Hendel, 1932, syn. nov.

Keywords

New records, new synonym, *Trimerina*, *Scatophila iowana*, faunistics.

Introduction

Finland is an exceptional country in having a record of regularly published checklists of the order Diptera, including shore flies. Three of such lists have been published during the last century: Frey (1941), Hackman (1980) and Kahanpää and Salmela (2014). The Diptera

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fauna of the country is well studied in comparison to most other countries, but far from perfectly understood.

The most recent list of the Finnish shore fly fauna is Zatwarnicki and Kahanpää (2014) in Kahanpää and Salmela (2014). The Finnish Ephydridae have attracted relatively little attention: few Finnish dipterologists have studied them and no coordinated study of the fauna has been made. The Finnish Museum of Natural History in Helsinki (MZH) holds by far the largest ephydrid collection in the country. Existing faunal works are essentially based on museum material collected between the years 1900 and 1960, mostly by sweep-netting. After a long hiatus, interest in acalyptrate flies resurged in the 21st century among Finnish amateur entomologists. The newer ephydrid material generally remains in private collections.

Zatwarnicki (1997) included a list of the species known from the country by the mid-1990s. Twelve species have been added to the fauna after 1997. Chronologically first is *Notiphila pollinosa* Krivosheina by Krivosheina (1998), then *Calocoenia paurosoma* (Sturtevant & Wheeler) and *Parydra arctica* Clausen by Krivosheina (2000), *Coenia curvicauda* (Meigen) by Haarto and Winqvist (2002), *Gymnoclasiopa pulchella* (Meigen) by Winqvist (2002), *Notiphila major* Stenhammar by Kahanpää and Winqvist (2003), *Trimerina microchaeta* Hendel (as *T. indistincta* Krivosheina) by Krivosheina (2004), *Philotelma defectum* (Haliday) by Mathis et al. (2009), *Atissa pygmaea* (Haliday) by Winqvist (2011), and *Hecamedoides unispinosus* (Collin), *Parydra mitis* (Cresson) and *P. nigritarsis* Strobl by Kahanpää (2013). The identity of the North European *Glenanthe* species was resolved by Zatwarnicki and Mathis (2012).

Thirteen additional species of Ephydridae were recorded for the first time from Finland in the recent checklist (Zatwarnicki and Kahanpää 2014). The checklist format did not allow for the inclusion of record data. This paper provides the previously unpublished records on which the checklist was based. Additionally, one new synonymy is proposed: *Trimerina indistincta* Krivosheina, 2004 is treated as a junior synonym of *Trimerina microchaeta* Hendel, 1932 (syn. nov.). After inclusion of all additions and corrections to the fauna, the number of shore fly species recorded from Finland is now 112.

Some material from north-western Russia, adjacent to the Russian-Finnish border, was also examined during the preparation of the Finnish checklist. Four species are recorded from Russia for the first time.

Materials and methods

All the specimens discussed in this paper are deposited at the Zoological Museum of the Finnish Museum of Natural History in Helsinki (MZH) unless otherwise specified. Most MZH specimens have unique specimen identifiers in the form of a URL (Uniform Resource Locator). The URL can be used as a web address: it points to a web page with details of the sample in question. While we cannot guarantee that the web content is available in the future, the address (URL) will remain unique. Standard abbreviations are used for the

Finnish biogeographical provinces; see the Fauna Entomologica Scandinavica book series or Heikinheimo and Raatikainen (1971) and Heikinheimo and Raatikainen (1981) for details and maps.

Finnish insect collectors usually use a national uniform grid system (*yhtenäiskoordinaatisto,* YKJ) for mapping and labeling purposes. The Darwin Core (DC) field "verbatimCoordinates" is used for the YKJ coordinates printed on labels. The DC fields "decimalLatitude" and "decimalLongitude" in the Taxon treatments section are given in World Geodetic System 1984 (WGS84) decimal degrees. Where no collector-supplied coordinates were available, the records were georeferenced by the senior author on the basis of the collecting locality.

The identity of all included species is based on the study of primary types conducted by the junior author, except for *Hydrellia tarsata* Haliday and *Scatophila mesogramma* (Loew), for which interpretations are based on Collin (1966) and Sturtevant and Wheeler (1953) respectively.

The order of species follows Zatwarnicki and Kahanpää (2014).

Taxon treatments

Trimerina microchaeta Hendel, 1932

Nomenclature

Trimerina microchaeta Hendel 1932: 11

= *Trimerina indistincta* Krivosheina 2004: 631 (syn. nov.)

Materials

a. scientificName: *Trimerina microchaeta* Hendel, 1932; order: Diptera; family: Ephydridae; genus: *Trimerina*; specificEpithet: microchaeta; scientificNameAuthorship: Hendel, 1932; country: Finland; stateProvince: EH; municipality: Hartola; locality: Hirtesalo; verbatimElevation: 80; verbatimCoordinates: 6839:[3]450; decimalLatitude: 61.66; decimalLongitude: 26.07; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 2002; month: 5; day: 15; habitat: a lake shore; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: JKA12-0653; recordedBy: Frey, Richard; associatedSequences: BOLD:2709504; identifiedBy: Kahanpää, Jere; dateIdentified: 2012; institutionCode: Coll. J. Kahanpää; basisOfRecord: PreservedSpecimen

b. scientificName: *Trimerina microchaeta* Hendel, 1932; order: Diptera; family: Ephydridae; genus: *Trimerina*; specificEpithet: microchaeta; scientificNameAuthorship: Hendel, 1932; country: Finland; stateProvince: ES; municipality: Joutsa; locality: Oravakivensalmi; verbatimElevation: 80; verbatimCoordinates: 6845:[3]451; decimalLatitude: 61.71; decimalLongitude: 26.08; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 2004; month: 6; day: 3; individualCount: 1; sex: F; lifeStage: adult; catalogNumber: JKA12-0654; recordedBy: Frey, Richard; associatedSequences: BOLD:2709505;

identifiedBy: Kahanpää, Jere; dateIdentified: 2012; institutionCode: Coll. J. Kahanpää; basisOfRecord: PreservedSpecimen

Distribution

Widespread in Europe; also occurs in the Russian Far East (Kamchatka) (Zatwarnicki 2013).

Taxon discussion

After examination of primary types of *Trimerina microchaeta* Hendel and *T. indistincta* Krivosheina we suggest to synonymize these two species. Krivosheina (2004) provided three characters to separate *T. indistincta* from *T. microchaeta*: a gena-to-eye ratio of 0.17 (versus 0.20 for *T. microchaeta*), yellow mid and hind coxae (versus all coxae partially dark), mid and hind tibiae entirely yellow (versus mid and hind tibiae with a dark band). These characters separating the two species are not consistent and fall within the variation range of *T. microchaeta*. Both nominal taxa have essentially the same male terminalia with characteristic postgonostyli (=postsurstyli) bearing short and apically rounded antero-ventral processes as illustrated for *T. indistincta* by Krivosheina (2004).

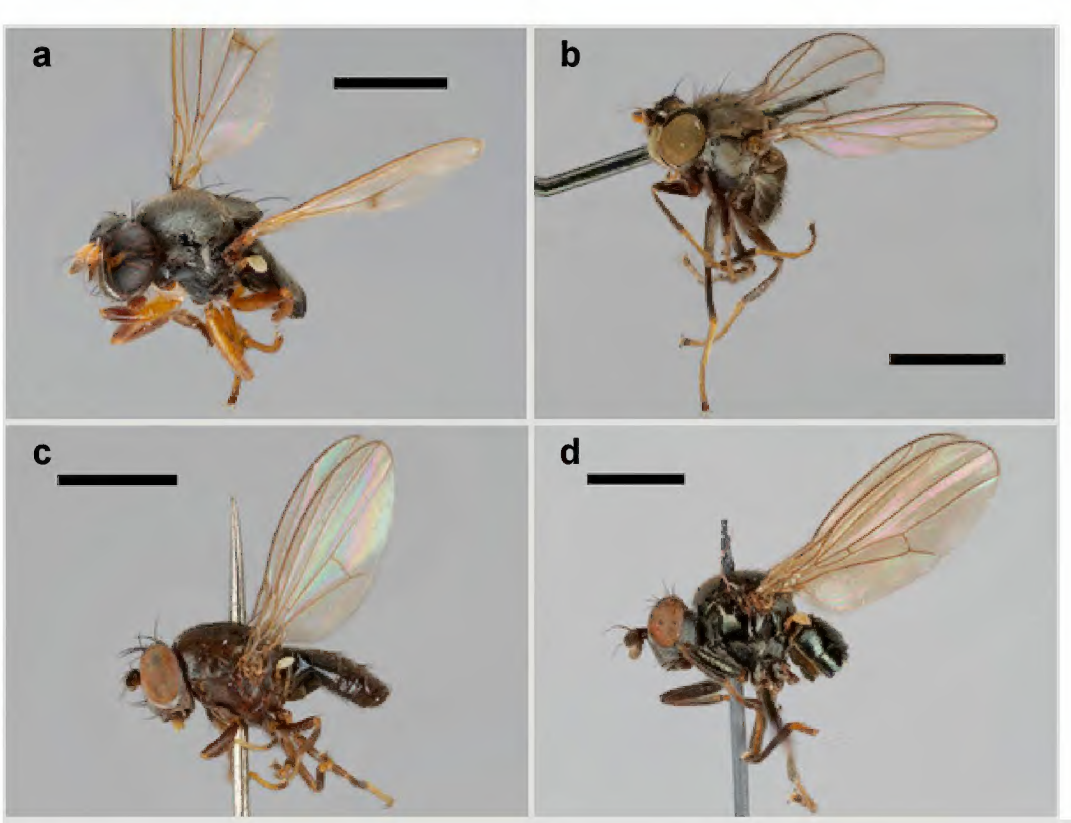

Figure 1.

Ephydrid species from Finland. Scale bar = 1.0 mm.

a: *Trimerina microchaeta*. Holotype of *Trimerina indistincta* Krivosheina (specimen http://id.luomus.fi/GV.4020)

b: *Hydrellia mutata* (http://id.luomus.fi/GV.16611)

c: *Ditrichophora calceata* (http://id.luomus.fi/GV.16561)

d: *Pelina norvegica* (http://id.luomus.fi/GV.19162)

Notes

The holotype of *Trimerina indistincta* is shown in Fig. 1a.

Hydrellia albifrons Fallén, 1813

Materials

a. scientificName: *Hydrellia albifrons* Fallén, 1813; order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: albifrons; scientificNameAuthorship: Fallén, 1813; country: Finland; stateProvince: V; municipality: Naantali; decimalLatitude: 60.47; decimalLongitude: 22.47; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 20000; georeferencedBy: Kahanpää, Jere; year: 1939; month: 8; day: 16; individualCount: 1; sex: M; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16614; recordedBy: Tiensuu, Lauri; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Hydrellia albifrons* Fallén, 1813; order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: albifrons; scientificNameAuthorship: Fallén, 1813; country: Finland; stateProvince: V; municipality: Naantali; decimalLatitude: 60.13; decimalLongitude: 22.02; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 20000; georeferencedBy: Kahanpää, Jere; year: 1949; month: 7; day: 1; individualCount: 1; sex: F; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16615; recordedBy: Tiensuu, Lauri; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

Best identified by structures of the male genitalia as figured by Collin (1966) and Canzoneri and Meneghini (1983).

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Widespread in Europe; also known from North Africa and Pakistan (Zatwarnicki 1988, Zatwarnicki 2013).

Ecology

Larvae of this species feed on pondweeds (*Potamogeton*) (Zatwarnicki 1988), the common frogbit (*Hydrocharis morsus-ranae*) (Hering 1926), and possibly also on water plantains (*Alisma plantago-aquatica*) (see Deonier 1971).

Hydrellia cochleariae Haliday, 1839

Materials

a. scientificName: *Hydrellia cochleariae* Haliday, 1839; order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: cochleariae; scientificNameAuthorship: Haliday, 1839; country: Finland; stateProvince: U; municipality: Helsinki; locality: Jollas; verbatimLocality:

Helsinge; decimalLatitude: 60.16; decimalLongitude: 25.07; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1864; month: 6; day: 20; individualCount: 4; sex: MF; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16690; recordedBy: Palmén, Johan Axel; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Hydrellia cochleariae* Haliday, 1839; order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: cochleariae; scientificNameAuthorship: Haliday, 1839; country: Finland; stateProvince: U; municipality: Helsinki; locality: Jollas; verbatimLocality: Helsinge; decimalLatitude: 60.16; decimalLongitude: 25.07; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1864; month: 6; day: 20; individualCount: 5; sex: MF; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16691; recordNumber: 4096; recordedBy: Palmén, Johan Axel; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Hydrellia cochleariae* Haliday, 1839; order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: cochleariae; scientificNameAuthorship: Haliday, 1839; country: Finland; stateProvince: V; municipality: Korppoo; locality: Jurmo; decimalLatitude: 59.82; decimalLongitude: 21.60; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1960; month: 8; day: 8; individualCount: 1; sex: MF; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16690; recordedBy: Meinander, Martin; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

Best identified by structures of the male genitalia as illustrated by Collin (1966).

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Central and Western Europe (Zatwarnicki 2013). The Finnish records are the first from Northern Europe.

Ecology

Reared from water soldiers (*Stratiotes*), *Potamogeton* (Fischer 1997), and water starworts (*Callitriche*) (Hering 1957). Older, less reliable host records mention *Hydrocharis* as an additional host (see Deonier 1971).

Notes

Previously misidentified as *Hydrellia flavicornis* (Fallén, 1823) in Finland (Hackman 1980).

Hydrellia fulviceps (Stenhammar, 1844)

Material

a. scientificName: *Hydrellia fulvice* ps (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: fulviceps; scientificNameAuthorship:

(Stenhammar, 1844); country: Finland; stateProvince: A; locality: Åland; verbatimLocality: Aland; decimalLatitude: 60.2; decimalLongitude: 20.0; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 50000; georeferencedBy: Kahanpää, Jere; individualCount: 1; sex: M; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/HT.808; recordNumber: 644; recordedBy: Palmén, Johan Axel; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

Best identified by structures of the male genitalia as illustrated by Collin (1966).

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Widespread in Europe, it is recorded also from the Russian Far East (Zatwarnicki 2013).

Ecology

No reliable records of the host plant of this species could be found.

Notes

Previously misidentified as *Hydrellia chrysostoma* (Meigen, 1830) (sensu Becker 1896) in Finland (Hackman 1980).

Hydrellia laticeps (Stenhammar, 1844)

Materials

a. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 7; day: 9; individualCount: 1; sex: M; lifeStage: adult; behavior: sitting on *Juncus*?; catalogNumber: http://id.luomus.fi/GV.16624; recordNumber: 272; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 6; day: 23; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16626; recordNumber: 1533; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 6; day: 23; habitat: Phragmites beds; individualCount: 1; sex: M; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16625; recordNumber: 1526; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

d. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 6; day: 23; habitat: Phragmites beds; individualCount: 1; sex: M; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16623; recordNumber: 1534; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

e. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 6; day: 23; habitat: Phragmites beds; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16630; recordNumber: 1531; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

f. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 7; day: 6; individualCount: 1; sex: M; lifeStage: adult; behavior: on Scirpus; catalogNumber: http://id.luomus.fi/GV.16632; recordNumber: 127; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

g. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 6; day: 22; habitat: Phragmites beds; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16631; recordNumber: 1496; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

h. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 6; day: 23; habitat: Phragmites beds; individualCount: 1; sex: F; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16633; recordNumber: 1537; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

i. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 8; day: 15; habitat: Phragmites beds; individualCount: 1; sex: F; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16634; recordNumber: 1204; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

j. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 8; day: 15; individualCount: 1; sex: F; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16637; recordNumber: 1197; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

k. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 7; day: 6; individualCount: 1; sex: F; lifeStage: adult; behavior: on Scirpus; catalogNumber: http://id.luomus.fi/GV.16628; recordNumber: 126; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

l. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 7; day: 6; individualCount: 1; sex: F; lifeStage: adult; behavior: on Scirpus; catalogNumber: http://id.luomus.fi/GV.16627; recordNumber: 121; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

m. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality:

Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 7; day: 6; individualCount: 1; sex: F; lifeStage: adult; behavior: on Scirpus; catalogNumber: http://id.luomus.fi/GV.16636; recordNumber: 134; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

n. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 6; day: 22; habitat: Phragmites beds; individualCount: 1; sex: F; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16635; recordNumber: 1498; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

o. scientificName: *Hydrellia laticeps* (Stenhammar, 1844); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: laticeps; scientificNameAuthorship: (Stenhammar, 1844); country: Finland; stateProvince: U; municipality: Hanko; locality: Tvärminne, Gloet; verbatimLocality: Tvärminne; decimalLatitude: 59.83; decimalLongitude: 23.10; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1932; month: 7; day: 9; individualCount: 1; sex: F; lifeStage: adult; behavior: on *Juncus*?; catalogNumber: http://id.luomus.fi/GV.16629; recordNumber: 269; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

Best identified by structures of the male genitalia as illustrated by Collin (1966) and Canzoneri and Meneghini (1983) under the name *Hydrellia flaviceps* (auct. nec Meigen).

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Widespread in Europe and probably across the Palaearctic Region, but poorly known (Zatwarnicki 2013).

Hydrellia mutata (Zetterstedt, 1846)

Materials

a. scientificName: *Hydrellia mutata* (Zetterstedt, 1846); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: mutata; scientificNameAuthorship: (Zetterstedt, 1846); country: Russia; stateProvince: Carelian Republic; municipality: Sortavala; verbatimLocality: Sortavala; decimalLatitude: 61.7; decimalLongitude: 30.7; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 20000; georeferencedBy: Kahanpää, Jere; year: 1936; month: 7; day: 1; verbatimEventDate: 1-VII 36; individualCount: 1; sex: M; lifeStage: adult; behavior: on Alisma; catalogNumber: http://

id.luomus.fi/GV.16611; recordedBy: Tiensuu, Lauri; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Hydrellia mutata* (Zetterstedt, 1846); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: mutata; scientificNameAuthorship: (Zetterstedt, 1846); country: Russia; stateProvince: Carelian Republic; municipality: Sortavala; verbatimLocality: Sortavala; decimalLatitude: 61.7; decimalLongitude: 30.7; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 20000; georeferencedBy: Kahanpää, Jere; year: 1936; month: 7; day: 1; verbatimEventDate: 1-VII 36; individualCount: 1; sex: F; lifeStage: adult; behavior: on Alisma; catalogNumber: http://id.luomus.fi/GV.16612; recordedBy: Tiensuu, Lauri; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Hydrellia mutata* (Zetterstedt, 1846); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: mutata; scientificNameAuthorship: (Zetterstedt, 1846); country: Finland; stateProvince: U; municipality: Helsinki; verbatimLocality: U: Helsinki; decimalLatitude: 60.19; decimalLongitude: 25; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 10000; georeferencedBy: Kahanpää, Jere; year: 1958; month: 7; day: 22; verbatimEventDate: 22 VII -58; individualCount: 1; sex: F; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16613; recordedBy: Tiensuu, Lauri; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

d. scientificName: *Hydrellia mutata* (Zetterstedt, 1846); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: mutata; scientificNameAuthorship: (Zetterstedt, 1846); country: Finland; stateProvince: U; municipality: Helsinki; verbatimLocality: N: Espoo, Kaitalahti; verbatimCoordinates: 66715:33712; verbatimCoordinateSystem: YKJ; decimalLatitude: 60.138; decimalLongitude: 24.691; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 300; georeferencedBy: Kahanpää, Jere; year: 2004; month: 8; day: 3; individualCount: 1; sex: M; lifeStage: adult; recordedBy: Kahanpää, Jere; identifiedBy: Kahanpää, Jere; dateIdentified: 2014-02-05; institutionCode: Coll. Kahanpää; basisOfRecord: PreservedSpecimen

e. scientificName: *Hydrellia mutata* (Zetterstedt, 1846); order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: mutata; scientificNameAuthorship: (Zetterstedt, 1846); country: Finland; stateProvince: V; municipality: Lohja; locality: Vaanila; verbatimLocality: Ab: Lohja, Vaanila; verbatimCoordinates: 66919:33409; verbatimCoordinateSystem: YKJ; decimalLatitude: 60.308; decimalLongitude: 24.118; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 50; georeferencedBy: Kahanpää, Jere; year: 2004; month: 7; day: 16; individualCount: 1; sex: M; lifeStage: adult; recordedBy: Kahanpää, Jere; identifiedBy: Kahanpää, Jere; dateIdentified: 2014-02-05; institutionCode: Coll. Kahanpää; basisOfRecord: PreservedSpecimen

Diagnosis

Best identified by structures of the male genitalia as illustrated by Collin (1966).

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Northern, Western and Central Europe (Zatwarnicki 2013).

Ecology

Larvae have recently been found feeding on *Alisma* (Robbins 1990) and *Stratiotes*, possibly also *Lemna* and *Alisma* (see Deonier 1971).

Notes

Correctly identified by Richard Frey and Lauri Tiensuu but the record was never published. Specimen http://id.luomus.fi/GV.16611 is illustrated in Fig. 1b.

Hydrellia subalbiceps Collin, 1966

Material

a. scientificName: *Hydrellia subalbiceps* Collin, 1966; order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: subalbiceps; scientificNameAuthorship: Collin, 1966; country: Finland; stateProvince: V; municipality: Salo; locality: Uskela; verbatimLocality: Uskela; decimalLatitude: 60.38; decimalLongitude: 23.13; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 20000; georeferencedBy: Kahanpää, Jere; individualCount: 1; sex: M; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16620; recordedBy: Ingelius, Hugo; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

Best identified by structures of the male genitalia as illustrated by Collin (1966) and Canzoneri and Meneghini (1983).

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Widely distributed in Europe and North Africa (Zatwarnicki 2013).

Ecology

Larval host plant(s) unknown.

Hydrellia tarsata Haliday, 1839

Material

a. scientificName: *Hydrellia tarsata* Haliday, 1839; order: Diptera; family: Ephydridae; genus: *Hydrellia*; specificEpithet: tarsata; scientificNameAuthorship: Haliday, 1839; country: Finland; stateProvince: V; municipality: Naantali; decimalLatitude: 60.13; decimalLongitude: 22.02; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 10000; georeferencedBy: Kahanpää, Jere; year: 1936; month: 7; day: 7; individualCount: 1; sex: M; lifeStage: adult; preparations: gen. prep. on pin; behavior: on Stratiotes; catalogNumber: http://id.luomus.fi/GV.16707; recordedBy: Tiensuu, Lauri; identifiedBy:

Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

Best identified by structures of the male genitalia as illustrated by Collin (1966).

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Western and Central Europe, also recorded from Bulgaria (Zatwarnicki 2013).

Biology

The Finnish specimen was caught on water soldiers (*Stratiotes*), which is a host plant of *H. tarsata* (Przhiboro 2004).

Notes

Three most likely conspecific females were caught together with the male.

Allotrichoma bezzii Becker, 1896

Materials

a. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: A; municipality: Jomala; locality: Öjen; verbatimLocality: Jomala; decimalLatitude: 60.18; decimalLongitude: 19.99; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1945; month: 6; day: 19; habitat: shallow sea shore; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16599; recordNumber: 7021; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: EH; municipality: Ylöjärvi; decimalLatitude: 61.55; decimalLongitude: 23.60; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1922; month: 4; day: 18; individualCount: 1; sex: M; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16598; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Russia; stateProvince: Carelian Republic; municipality: Paanajärvi; decimalLatitude: 66.27; decimalLongitude: 29.80; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 17; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16600; recordNumber: 909;

recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

d. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 26; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16601; recordNumber: 4954; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

e. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Russia; stateProvince: Republic of Carelia; municipality: Paanajärvi; verbatimLocality: Paanajärvi; decimalLatitude: 66.27; decimalLongitude: 29.80; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19196; recordNumber: 989; recordedBy: Platonoff, Stephan; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

f. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.007; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19197; recordNumber: 1697; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

g. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: V; municipality: Vihti; verbatimLocality: Vichtis; decimalLatitude: 60.424; decimalLongitude: 24.353; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19198; recordNumber: 3118; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

h. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.007; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19199; recordNumber: 1676; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

i. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.007; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19200; recordNumber: 1700; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

j. scientificName: Allotrichoma bezzii Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.007; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19201; recordNumber: 2863; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

k. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: PPe; municipality: Hailuoto; verbatimLocality: Karlö; decimalLatitude: 65.099; decimalLongitude: 24.750; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19202; recordNumber: 3361; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

l. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.862; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1955; month: 7; day: 22; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19203; recordNumber: 1887; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

m. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: U; municipality: Helsinki; verbatimLocality: U: Helsinki; decimalLatitude: 60.165; decimalLongitude: 24.915; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1949; month: 4; day: 17; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19204; recordedBy: Tiensuu, Lauri; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

n. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.862; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1958; month: 6; day: 14; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19205; recordNumber: 4011; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

o. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: U; municipality: Helsinki; verbatimLocality: Helsinki; decimalLatitude: 60.165; decimalLongitude: 24.915; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1949; month: 4; day: 17; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19206; recordedBy: Tiensuu, Lauri; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

p. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896;

country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1959; month: 8; day: 12; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19207; recordNumber: 4487; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

q. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: U; municipality: Helsinki; verbatimLocality: H:fors; decimalLatitude: 60.165; decimalLongitude: 24.915; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19208; recordNumber: 2575; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

r. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: U; municipality: Helsinki; verbatimLocality: Helsinki; decimalLatitude: 60.165; decimalLongitude: 24.915; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19209; recordNumber: 755; recordedBy: Tuomikoski, Risto; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

s. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: U; municipality: Espoo; verbatimLocality: Espoo; decimalLatitude: 60.251; decimalLongitude: 24.729; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19210; recordNumber: 41; recordedBy: Tuomikoski, Risto; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

t. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.862; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 20; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19211; recordNumber: 4622; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

u. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.862; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 13; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19212; recordNumber: 4047; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

v. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.007; geodeticDatum: wgs84;

georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19213; recordNumber: 2826; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

w. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.862; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 20; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19214; recordNumber: 4660; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

x. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19215; recordNumber: 4775; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

y. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19216; recordNumber: 4764; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

z. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: V; municipality: Sammatti; verbatimLocality: Sammatti; decimalLatitude: 60.323; decimalLongitude: 23.818; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19217; recordNumber: 1820; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

aa. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: Ks; municipality: Kuusamo; verbatimLocality: Oulankaj.; decimalLatitude: 66.261; decimalLongitude: 29.543; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19218; recordNumber: 386; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ab. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1955; month: 7; day: 2; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19219; recordNumber: 1827;

recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ac. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; municipality: Kuortane; verbatimLocality: Kuortane; decimalLatitude: 62.741; decimalLongitude: 23.561; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1955; month: 8; day: 17; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19220; recordNumber: 7590; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ad. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.862; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 13; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19221; recordNumber: 4588; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ae. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Finland; stateProvince: U; municipality: Helsinki; verbatimLocality: U: Helsinki; decimalLatitude: 60.165; decimalLongitude: 24.915; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1949; month: 4; day: 17; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19222; recordedBy: Tiensuu, Lauri; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

af. scientificName: *Allotrichoma bezzii* Becker, 1896; order: Diptera; family: Ephydridae; genus: *Allotrichoma*; specificEpithet: bezzii; scientificNameAuthorship: Becker, 1896; country: Russia; stateProvince: Republic of Carelia; municipality: Paanajärvi; verbatimLocality: Paanajärvi; decimalLatitude: 66.27; decimalLongitude: 29.80; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19223; recordNumber: 888; recordedBy: Frey, Richard; identifiedBy: Krivosheina, M.G.; dateIdentified: 1999; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Holarctic, widespread in Europe (Zatwarnicki 2013).

Notes

All old records of *Allotrichoma laterale* (Loew, 1860) from Finland are misidentifications of *Allotrichoma bezzii* Becker, 1896.

Ditrichophora calceata (Meigen, 1830)

Materials

a. scientificName: *Ditrichophora calceata* (Meigen, 1830); order: Diptera; family: Ephydridae; genus: *Ditrichophora*; specificEpithet: calceata; scientificNameAuthorship: (Meigen, 1830); country: Finland; stateProvince: U; municipality: Helsinki; locality: University Botanical gardens; decimalLatitude: 60.17; decimalLongitude: 24.95; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 500; georeferencedBy: Kahanpää, Jere; eventDate: 1942-7-14; year: 1942; month: 7; day: 14; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16562; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Tadeusz; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Ditrichophora calceata* (Meigen, 1830); order: Diptera; family: Ephydridae; genus: *Ditrichophora*; specificEpithet: calceata; scientificNameAuthorship: (Meigen, 1830); country: Russia; stateProvince: Carelian Republic; municipality: Petrosawodsk; verbatimLocality: Äänislinna; decimalLatitude: 61.79; decimalLongitude: 34.35; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; eventDate: 1946-8-10; year: 1946; month: 8; day: 10; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16561; recordedBy: Tiensuu, Lauri; identifiedBy: Kahanpää, Jere; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). A West-Palaearctic species found in almost all European countries and also in North Africa (Zatwarnicki 2013).

Notes

Specimen http://id.luomus.fi/GV.16561 is shown in Fig. 1c.

Hecamedoides unispinosus (Collin, 1943)

Materials

a. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: EH; municipality: Kangasala; verbatimLocality: Kangasala; decimalLatitude: 61.496; decimalLongitude: 24.0754; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19147; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: EH; municipality: Kangasala; verbatimLocality: Kangasala; decimalLatitude: 61.496; decimalLongitude: 24.0754; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19224;

recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: EH; municipality: Kangasala; verbatimLocality: Kangasala; decimalLatitude: 61.496; decimalLongitude: 24.0754; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19225; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

d. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: EH; municipality: Kangasala; verbatimLocality: Kangasala; decimalLatitude: 61.496; decimalLongitude: 24.0754; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19226; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

e. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.0078; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19227; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

f. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.0078; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19228; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

g. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Metsäpirtti; verbatimLocality: Metsäpirtti; decimalLatitude: 60.56; decimalLongitude: 30.52; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19229; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

h. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Metsäpirtti; verbatimLocality: Metsäpirtti; decimalLatitude: 60.56; decimalLongitude: 30.52; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19230; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

i. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Metsäpirtti; verbatimLocality: Metsäpirtti; decimalLatitude: 60.56; decimalLongitude: 30.52;

geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19231; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

j. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Metsäpirtti; verbatimLocality: Metsäpirtti; decimalLatitude: 60.56; decimalLongitude: 30.52; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19232; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

k. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Metsäpirtti; verbatimLocality: Metsäpirtti; decimalLatitude: 60.56; decimalLongitude: 30.52; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19233; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

l. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Metsäpirtti; verbatimLocality: Metsäpirtti; decimalLatitude: 60.56; decimalLongitude: 30.52; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19234; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

m. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Vaaseni; verbatimLocality: Terijoki; decimalLatitude: 60.96; decimalLongitude: 34.02; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 8; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19235; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

n. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Vaaseni; verbatimLocality: Vaaseni; decimalLatitude: 60.96; decimalLongitude: 34.02; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1942; month: 6; day: 15; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19236; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

o. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Terijoki; verbatimLocality: Terijoki; decimalLatitude: 60.18; decimalLongitude: 29.7; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 8; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19237; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

p. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus;

scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Terijoki; verbatimLocality: Terijoki; decimalLatitude: 60.18; decimalLongitude: 29.7; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 8; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19238; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

q. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Terijoki; verbatimLocality: Terijoki; decimalLatitude: 60.18; decimalLongitude: 29.7; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 8; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19239; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

r. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Metsäpirtti; verbatimLocality: Metsäpirtti; decimalLatitude: 60.56; decimalLongitude: 30.52; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19240; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

s. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Terijoki; verbatimLocality: Terijoki; decimalLatitude: 60.18; decimalLongitude: 29.7; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 8; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19241; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

t. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Terijoki; verbatimLocality: Terijoki; decimalLatitude: 60.18; decimalLongitude: 29.7; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 8; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19242; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

u. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.0078; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19243; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

v. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Vaaseni; verbatimLocality: Vaaseni; decimalLatitude: 60.96; decimalLongitude: 34.02; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1942; month: 6; day: 15; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19244;

recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

w. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Terijoki; verbatimLocality: Terijoki; decimalLatitude: 60.18; decimalLongitude: 29.7; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 11; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19245; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

x. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Russia; municipality: Vaaseni; verbatimLocality: Vaaseni; decimalLatitude: 60.96; decimalLongitude: 34.02; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1942; month: 6; day: 1; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19246; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

y. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.0078; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19247; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

z. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.0078; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19248; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

aa. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.0078; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19249; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ab. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: V; municipality: Lohja; verbatimLocality: Lojo; decimalLatitude: 60.237; decimalLongitude: 24.0078; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19250; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ac. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: U; municipality: Helsinki; locality: Botanical gardens; verbatimLocality: Helsinki, Hortus Bot.;

decimalLatitude: 60.174; decimalLongitude: 24.9508; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 5; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19251; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ad. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.8625; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1958; month: 6; day: 14; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19252; recordedBy: Storå, Ragnar; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ae. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.8625; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 6; day: 28; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19253; recordedBy: Storå, Ragnar; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

af. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.8625; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 6; day: 28; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19254; recordedBy: Storå, Ragnar; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ag. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.8625; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 6; day: 28; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19255; recordedBy: Storå, Ragnar; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ah. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: KP; municipality: Pedersöre; verbatimLocality: Pedersöre; decimalLatitude: 63.531; decimalLongitude: 22.8625; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 6; day: 28; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19256; recordedBy: Storå, Ragnar; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ai. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: V; municipality: Vihti; verbatimLocality: Vichtis; decimalLatitude: 60.424; decimalLongitude: 24.3539; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage:

adult; catalogNumber: http://id.luomus.fi/GV.19257; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

aj. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: EH; municipality: Kangasala; verbatimLocality: Kangasala; decimalLatitude: 61.496; decimalLongitude: 24.0754; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19258; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

ak. scientificName: *Hecamedoides unispinosus* (Collin, 1943); order: Diptera; family: Ephydridae; genus: *Hecamedoides*; specificEpithet: unispinosus; scientificNameAuthorship: (Collin, 1943); country: Finland; stateProvince: EH; municipality: Kangasala; verbatimLocality: Kangasala; decimalLatitude: 61.496; decimalLongitude: 24.0754; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19259; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, Th.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

Two of the North European *Hecamedoides* species can be identified by the number of short, blunt anteroventral spine-like setae on the fore femur: one in *H. unispinosus*, several in *H. glaucellus* (Stenhammar, 1844). *Hecamedoides kelmorum* Stuke, 2011, a species recently described from Germany, also has a black antenna and a single anteroventral spine (Stuke 2011). *Hecamedoides unispinosus* and *H. kelmorum* are best identified by structures of the male genitalia. Two Finnish males (http://id.luomus.fi/GV.19243 and http://id.luomus.fi/GV.19235) were dissected to confirm their identification. The gonite of these specimens is clearly of the *H. unispinosus* type.

Distribution

A Holarctic species. Recorded from Finland by Kahanpää 2013. New for Russia.

Taxon discussion

Hecamedoides unispinosus is much more common in Finland than *H. glaucellus*. The Fennica collection of MZH has only three specimens of the latter species: http://id.luomus.fi/GV.19146 from Turku (see Fig. 2b) and two specimens from Terijoki (=Russia, Leningrad Oblast, Zelenogorsk).

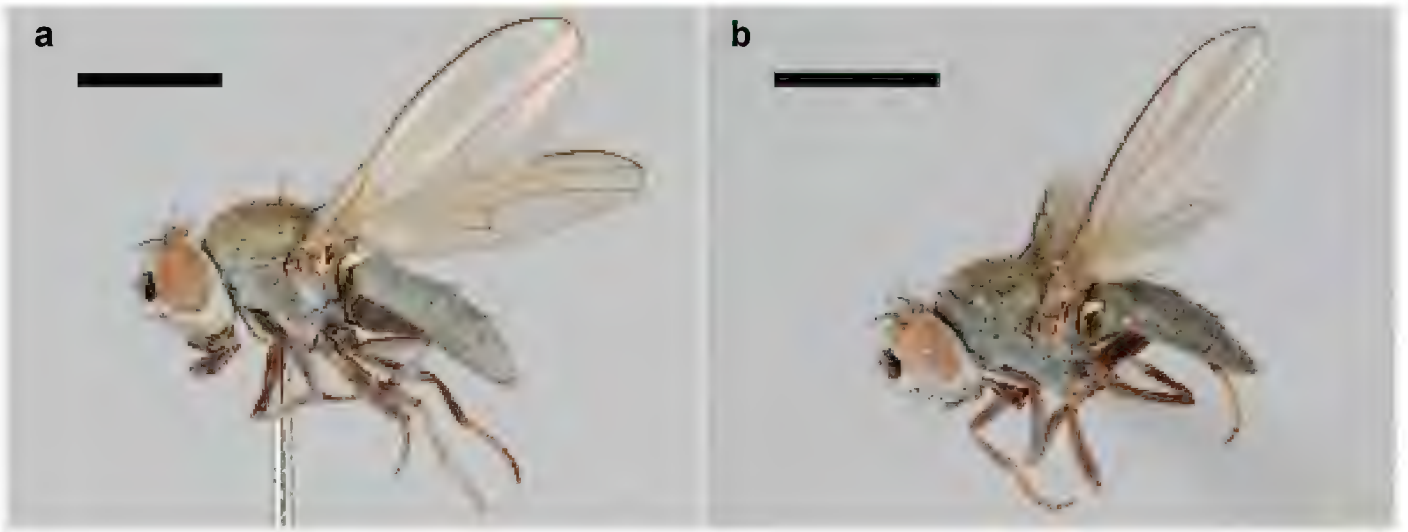

Figure 2.

Hecamedoides species from Finland. Scale bar = 1.0 mm.

a: *Hecamedoides glaucellus* (specimen http://id.luomus.fi/GV.19146)
b: *Hecamedoides unispinosus* (specimen http://id.luomus.fi/GV.19147)

Pelina norvegica Dahl, 1975

Materials

a. scientificName: *Pelina norvegica* Dahl, 1975; order: Diptera; family: Ephydridae; genus: *Pelina*; specificEpithet: norvegica; scientificNameAuthorship: Dahl, 1975; country: Russia; stateProvince: Murmansk Oblast; locality: Yläluostari; verbatimLocality: Petsamo; decimalLatitude: 69.4; decimalLongitude: 31.11; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1930; month: 7; day: 12; habitat: riverside; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19162; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Pelina norvegica* Dahl, 1975; order: Diptera; family: Ephydridae; genus: *Pelina*; specificEpithet: norvegica; scientificNameAuthorship: Dahl, 1975; country: Russia; stateProvince: Murmansk Oblast; locality: Yläluostari; verbatimLocality: Petsamo; decimalLatitude: 69.4; decimalLongitude: 31.11; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1930; month: 7; day: 12; habitat: riverside; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19163; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Distribution

Previously recorded from Norway, Germany and Slovakia (Zatwarnicki 2013). New for Russia.

Notes

Specimen http://id.luomus.fi/GV.19162 of *Pelina norvegica* is shown in Fig. 1d.

Parydra (*Chaetoapnea*) *mitis* (Cresson, 1930)

Materials

a. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Finland; stateProvince: U; municipality: Sipoo; locality: Sjöskog; verbatimCoordinates: 6690:3385; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1975; month: 5; day: 6; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16564; recordedBy: Albrecht, Anders; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Russia; municipality: Vaaseni; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1942; month: 5; day: 2; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16565; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Finland; stateProvince: U; municipality: Helsinki; locality: Herttoniemi; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1945; month: 5; day: 16; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16566; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

d. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Finland; stateProvince: EK; municipality: Vehkalahti; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1945; month: 4; day: 9; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16567; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

e. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Finland; stateProvince: U; municipality: Helsinki; locality: Herttoniemi; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1945; month: 5; day: 16; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16568; recordedBy: Tiensuu, Lauri; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

f. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Finland; stateProvince: PS; municipality: Maaninka; locality: Tuovilanlahti; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1865; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16569; recordedBy: Lundström, Carl; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

g. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Russia; stateProvince: Republic of Carelia; municipality: Paanajärvi; locality: behind Takalo farm; decimalLatitude: 66.26; decimalLongitude: 29.78; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 17; day: 6; habitat: lake shore; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16570;

recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

h. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16571; recordedBy: Storå, Ragnar; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

i. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Russia; stateProvince: Republic of Carelia; municipality: Paanajärvi; locality: hotel; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 7; day: 6; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16572; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

j. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954-1955; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16573; recordedBy: Storå, Ragnar; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

k. scientificName: *Parydra mitis* (Cresson, 1930); order: Diptera; family: Ephydridae; genus: *Parydra*; specificEpithet: mitis; scientificNameAuthorship: (Cresson, 1930); country: Finland; stateProvince: U; municipality: Helsinki; locality: Munkkiniemi; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1941; month: 5; day: 4; habitat: a herb-rich forest with a stream; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16574; recordedBy: Frey, Richard; identifiedBy: Zatwarnicki, T.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Widespread in Europe, it is also found in North Africa (Zatwarnicki 2013). The illustrated record by Kahanpää (2013) represents *Parydra nigritarsis* Strobl, 1893.

Notes

Fig. 3c illustrates specimen http://id.luomus.fi/GV.16525.

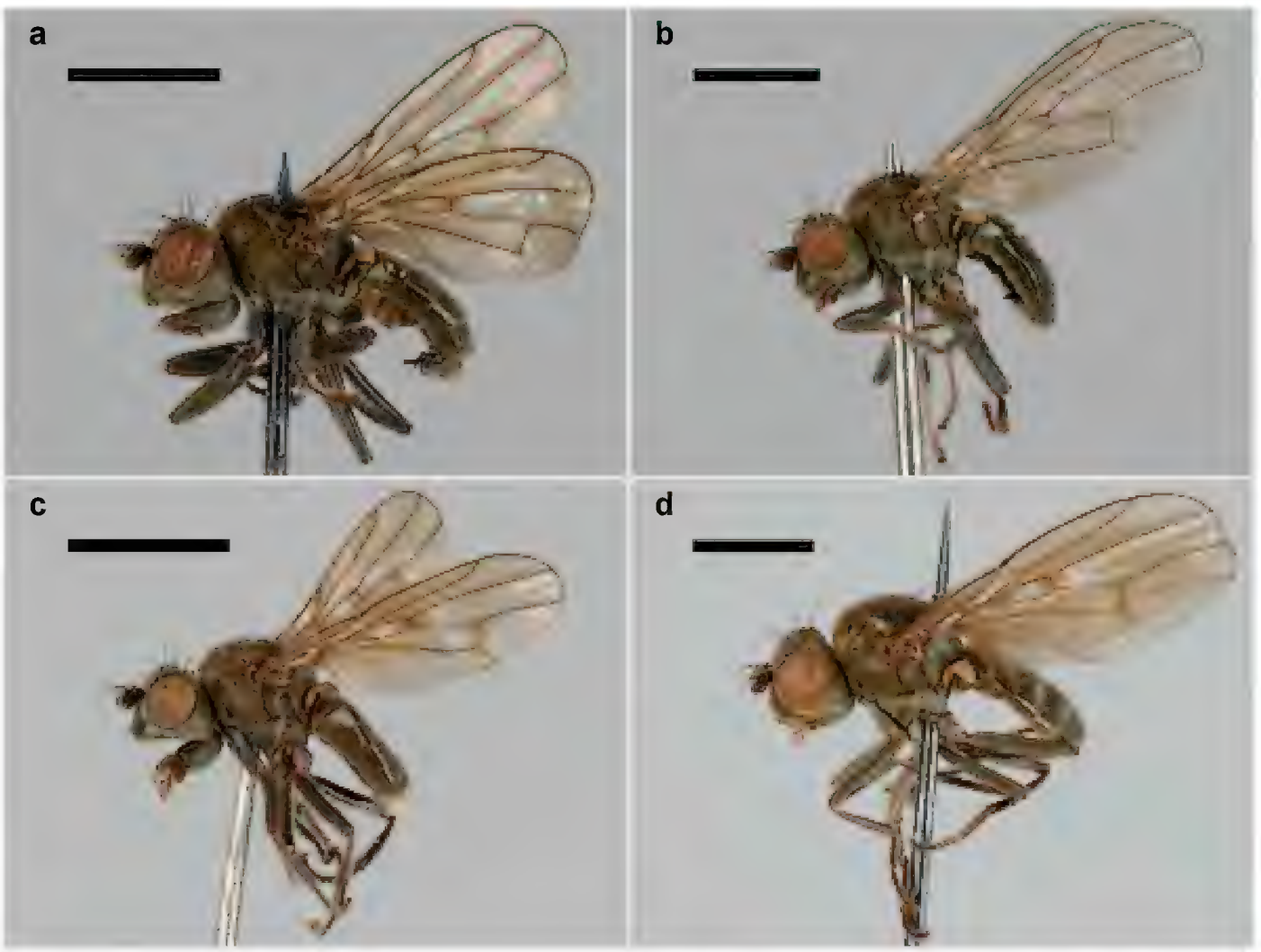

Figure 3.

Parydra species from Finland. Scale bar = 1.0 mm.

a: *Parydra arctica*, male (specimen http://id.luomus.fi/GV.16507)
b: *Parydra fossarum*, male (specimen http://id.luomus.fi/GV.16512)
c: *Parydra mitis*, female (specimen http://id.luomus.fi/GV.16525)
d: *Parydra nigritarsis*, male (specimen http://id.luomus.fi/GV.19145)

Calocoenia paurosoma (Sturtevant & Wheeler, 1954)

Materials

a. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Finland; stateProvince: EnL; municipality: Enontekiö; locality: Kilpisjärvi; decimalLatitude: 69.0; decimalLongitude: 20.9; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 4000; georeferencedBy: Kahanpää, Jere; year: 1954; month: 8; day: 2; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.18970; recordNumber: 6643; recordedBy: Storå, Ragnar; identifiedBy: Krivosheina, Marina G.; dateIdentified: 2004; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Finland; stateProvince: EnL; municipality: Enontekiö; locality: Kilpisjärvi, Malla; decimalLatitude: 69.09; decimalLongitude: 20.70; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 4000; georeferencedBy: Kahanpää, Jere; year: 1929; month: 7; day: 15; habitat: regio

subalpina; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16463; recordNumber: 1106; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Finland; stateProvince: Ks; municipality: Kuusamo; locality: Kuusamo town, Niilo-oja; locationRemarks: N side of Niilo-oja; decimalLatitude: 65.97; decimalLongitude: 29.18; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 500; georeferencedBy: Kahanpää, Jere; year: 1917; month: 6; day: 9; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16457; recordNumber: 392; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

d. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Finland; stateProvince: KemLl; municipality: Kittilä; locality: Alakyrö; decimalLatitude: 68.07; decimalLongitude: 24.39; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1911; month: 6; day: 19; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16459; recordNumber: 1115; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

e. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Finland; stateProvince: PS; municipality: Nilsiä; decimalLatitude: 63.2; decimalLongitude: 28.1; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1865; month: 6; day: 27; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16456; recordNumber: 1153; recordedBy: Lundström, Carl; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

f. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Russia; stateProvince: Carelian Republic; municipality: Paanajärvi; locality: bog behind Takalo farm; decimalLatitude: 66.26; decimalLongitude: 29.78; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 2000; georeferencedBy: Kahanpää, Jere; year: 1937; month: 6; day: 24; habitat: a bog; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16462; recordNumber: 712; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

g. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Russia; stateProvince: Carelian Republic; municipality: Paanajärvi; locality: bog behind Takalo farm; decimalLatitude: 66.26; decimalLongitude: 29.78; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 2000; georeferencedBy: Kahanpää, Jere; year: 1937; month: 6; day: 24; habitat: a bog; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16458; recordNumber: 673; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

h. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Russia; stateProvince: Murmansk Oblast; municipality: Kantalahti; decimalLatitude: 67.2; decimalLongitude: 32.4; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1913; month: 6; day: 28; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16460; recordNumber: 2492; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

i. scientificName: *Calocoenia paurosoma* (Sturdevant & Wheeler, 1954); order: Diptera; family: Ephydridae; genus: *Calocoenia*; specificEpithet: paurosoma; scientificNameAuthorship: (Sturdevant & Wheeler, 1954); country: Russia; stateProvince: Murmansk Oblast; municipality: Kantalahti; decimalLatitude: 67.2; decimalLongitude: 32.4; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1913; month: 6; day: 27; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16461; recordNumber: 961; recordedBy: Hellén, Wolter; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

At first glance this species resembles the genus *Coenia*, but it has five dorsocentral setae. Specimen http://id.luomus.fi/GV.16455 is illustrated in Fig. 4b, d.

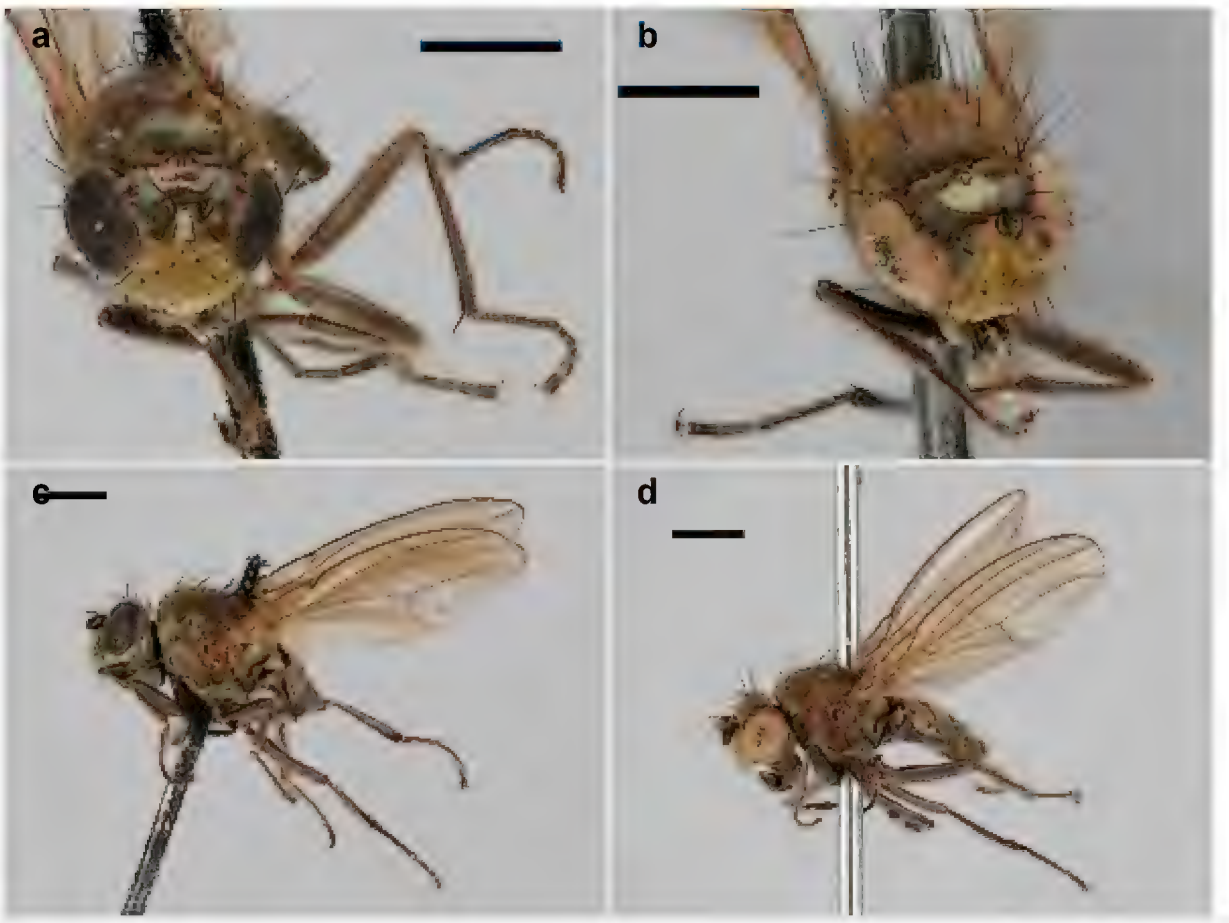

Figure 4.

Coenia and *Calocoenia*. Scale bars 0.5 mm (a-b) and 1.0 mm (c-d).

a: *Coenia vulgata*, face. Paratype specimen http://id.luomus.fi/GV.4185.

b: *Calocoenia paurosoma*, face. Specimen http://id.luomus.fi/GV.16455.

c: *Coenia vulgata*, lateral view. Specimen as above.

d: *Calocoenia paurosoma*, lateral view. Specimen as above.

Distribution

New for Russia. North Holarctic, known in Europe from Norway, Sweden and Finland (Zatwarnicki 2013). First noted from Finland by Krivosheina (2000) from Kilpisjärvi. The new records presented here expand the known European distribution of the species both south- and eastwards.

Coenia vulgata Krivosheina, 2001

Materials

a. scientificName: *Coenia vulgata* Krivosheina, 2001; order: Diptera; family: Ephydridae; genus: *Coenia*; specificEpithet: vulgata; scientificNameAuthorship: Krivosheina, 2001; country: Finland; stateProvince: PPe; municipality: Oulu; decimalLatitude: 65.01; decimalLongitude: 25.41; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 10000; georeferencedBy: Kahanpää, Jere; year: 1941; month: 4; day: 27; individualCount: 1; sex: M; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16464; recordNumber: 174; recordedBy: Wuorentaus, Yrjö; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Coenia vulgata* Krivosheina, 2001; order: Diptera; family: Ephydridae; genus: *Coenia*; specificEpithet: vulgata; scientificNameAuthorship: Krivosheina, 2001; country: Finland; stateProvince: PPe; municipality: Hailuoto; locality: Kirkkolahti; decimalLatitude: 64.98; decimalLongitude: 24.72; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 2000; georeferencedBy: Kahanpää, Jere; year: 1947; month: 7; day: 14; habitat: coastal meadows; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16465; recordNumber: 775; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Coenia vulgata* Krivosheina, 2001; order: Diptera; family: Ephydridae; genus: *Coenia*; specificEpithet: vulgata; scientificNameAuthorship: Krivosheina, 2001; country: Finland; stateProvince: PPe; municipality: Hailuoto; locality: Kirkkolahti; decimalLatitude: 64.98; decimalLongitude: 24.72; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 2000; georeferencedBy: Kahanpää, Jere; year: 1947; month: 7; day: 12; habitat: coastal meadows, on water; individualCount: 1; sex: F; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.16466; recordNumber: 606; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

d. scientificName: *Coenia vulgata* Krivosheina, 2001; order: Diptera; family: Ephydridae; genus: *Coenia*; specificEpithet: vulgata; scientificNameAuthorship: Krivosheina, 2001; country: Finland; stateProvince: PPe; municipality: Hailuoto; locality: Marjaniemi; decimalLatitude: 65.04; decimalLongitude: 24.56; geodeticDatum: wgs84; coordinateUncertaintyInMeters: 1000; georeferencedBy: Kahanpää, Jere; year: 1947; month: 7; day: 13; habitat: a coastal bay and a coastal grazing area; individualCount: 1; sex: F; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.16467; recordNumber: 2557; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 09/26/2013; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). Previously known from Archangelsk Oblast (NW European Russia) and Kazakhstan (Krivosheina 2001).

Notes

Paratype specimen http://id.luomus.fi/GV.4185 is illustrated in Fig. 4a, c.

Scatophila iowana Wheeler, 1961

Material

a. scientificName: *Scatophila iowana* Wheeler, 1961; order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: iowana; scientificNameAuthorship: Wheeler, 1961; country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Fennia Om Jakobstad; decimalLatitude: 63.69; decimalLongitude: 22.67; geodeticDatum: WGS84; coordinateUncertaintyInMeters: 10000; georeferencedBy: Jere Kahanpää (MZH); year: 1950; month: 7; day: 5; individualCount: 1; sex: M; lifeStage: adult; catalogNumber: http://id.luomus.fi/HT.3120; recordedBy: Storå, Ragnar; identificationRemarks: Identified as Scatophila modesta Becker by MG Krivosheina in 2003.; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Diagnosis

Scatophila iowana Wheeler has entirely black legs, a yellow haltere, a matt brown mesonotum and a brownish microtomentose abdomen. It lacks the pair of pronounced facial setae typical for *S. despecta* (Haliday). The wing and mesonotal patterns of *Scatophila iowana* resemble those of *S. caviceps* (Stenhammar). Males of these two species can be identified by the shape of the central part of the face: somewhat protruding between well-defined antennal grooves in *S. iowana*, weakly concave and without antennal grooves in *S. caviceps*.

The anepisternum of *S. iowana* is rather uniformly brownish; *S. caviceps* has a grey anepisternum with two brown spots, one around the base of the anepisternal bristle and one at the ventral margin.

The male terminalia of *S. iowana* are characterized by the anterior margin of the epandrium, which is slightly concave, and the aedeagus, which consists of three sclerites. In *S. caviceps* the anterior margin of the epandrium bears a medial projection and the aedeagus is a one-piece structure.

Distribution

First recorded from Finland by Zatwarnicki and Kahanpää (2014). *Scatophila iowana* is a Holarctic species. It is probably widespread in Europe, but its distribution remains poorly known (Zatwarnicki 2013).

Scatophila mesogramma (Loew, 1869)

Materials

a. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 7; day: 27; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19175; recordNumber: 6405; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

b. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.44; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1955; month: 7; day: 20; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19176; recordNumber: 1743; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

c. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1955; month: 7; day: 27; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19177; recordNumber: 7133; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

d. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Russia; stateProvince: Republic of Carelia; municipality: Paanajärvi; locality: behind Takalo farm; verbatimLocality: Paanajärvi; decimalLatitude: 66.26; decimalLongitude: 29.78; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1939; month: 6; day: 17; habitat: lake shore; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19178; recordNumber: 885; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

e. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 8; day: 24; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19179; recordNumber: 2005; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

f. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 8; day: 30; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19180;

recordNumber: 2171; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

g. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 24; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19181; recordNumber: 4726; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

h. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 8; day: 30; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19182; recordNumber: 2215; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

i. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1955; month: 8; day: 1; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19183; recordNumber: 7287; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

j. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 8; day: 15; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19184; recordNumber: 4557; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

k. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 8; day: 15; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19185; recordNumber: 4559; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

l. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 26; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19186; recordNumber: 4864; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

m. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: InL; municipality: Utsjoki; verbatimLocality: Utsjoki; decimalLatitude: 69.509; decimalLongitude: 27.109; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19187; recordNumber: 1308; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

n. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 8; day: 24; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19188; recordNumber: 2041; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

o. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 26; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19189; recordNumber: 4859; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

p. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 26; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19190; recordNumber: 4858; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

q. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Uusikaarlepyy; verbatimLocality: Nykarleby; decimalLatitude: 63.436; decimalLongitude: 22.675; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1954; month: 5; day: 26; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19191; recordNumber: 4856; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

r. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Russia; stateProvince: Murmansk Oblast; verbatimLocality: Kola; decimalLatitude: 68.88; decimalLongitude: 33.04; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1913; month: 7; day: 29; individualCount: 1; lifeStage: adult; preparations: gen. prep. on pin; catalogNumber: http://id.luomus.fi/GV.19192; recordNumber: 408; recordedBy: Hellén, Wolter; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

s. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship:

(Loew, 1869); country: Finland; stateProvince: EnL; municipality: Enontekiö; locality: Palojoensuu; verbatimLocality: Enontekis; decimalLatitude: 68.296; decimalLongitude: 22.983; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1911; month: 7; day: 11; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19193; recordNumber: 3871; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

t. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: EnL; municipality: Enontekiö; verbatimLocality: Enontekis; decimalLatitude: 68.379; decimalLongitude: 22.725; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1911; month: 7; day: 14; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19194; recordNumber: 4397; recordedBy: Frey, Richard; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

u. scientificName: *Scatophila mesogramma* (Loew, 1869); order: Diptera; family: Ephydridae; genus: *Scatophila*; specificEpithet: mesogramma; scientificNameAuthorship: (Loew, 1869); country: Finland; stateProvince: KP; municipality: Pietarsaari; verbatimLocality: Jakobstad; decimalLatitude: 63.704; decimalLongitude: 22.634; geodeticDatum: wgs84; georeferencedBy: Kahanpää, Jere; year: 1952; month: 8; day: 20; individualCount: 1; lifeStage: adult; catalogNumber: http://id.luomus.fi/GV.19195; recordNumber: 2212; recordedBy: Storå, Ragnar; identifiedBy: Kahanpää, Jere; dateIdentified: 2013-9-26; institutionCode: MZH; basisOfRecord: PreservedSpecimen

Distribution

New to Finland and Russia. First recorded from Finland by Zatwarnicki and Kahanpää (2014). Holarctic; in Europe it is known from Finland, Sweden, Denmark, Great Britain, Belgium and Germany (Zatwarnicki 2013).

Discussion

Notes on previous misidentifications

The species identified as *Discocerina pulicaria* [auct. nec Haliday] by Frey (1933), Frey (1937), Frey (1949), Lindberg and Saris (1952) is actually *Ditrichophora fuscella* (Stenhammar, 1844). Similarly, *Allotrichoma laterale* sensu Frey (1940b), Frey (1940a) is *A. bezzii* Becker, 1896. Previous records of *Philygria posticata* by Frey 1930 represent *Ph. femorata* (Stenhammar).

Acknowledgements

We would like to thank Dr. Wayne N. Mathis, Dr. Lorenzo Munari, Dr. Daniel Whitmore and Dr. Owen Lonsdale for their constructive comments on an earlier version of this paper.

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